## **Data Stream Table: Cetaceans**

Data quality, not quality of effort

yellow = fair / partial / could improve

Data could improve, but not necessarily best use of resources

red = insufficient

analysis						Ī										-			
										Whic	h have	informe	d these processes:						
		Т	ypes of	Analyses	used:			ESA		MMI	PA		NEPA				Data	Quality	
Data Stream	Occurrence	Stock Structure	Abundance & Trends	Design / Implement Conservation Strategies	General Biology / Ecology	Human interactions & Human-caused mortality	Biological Review Team/ Status Review Team	Critical Habitat	Biological Opinion	Stock Assessment Report	Take Reduction Team	Evaluation of Conservation Strategies	.al    :al    rog	Outreach/ public education	Journal publications/ conference presentations/ advancing protected species knowledge	Species	Frequency	Coverage	Collected by
	Cross-c	utting- d	lata qua	ality meas	ures and i	nformed p	rocesses	are th	e same	e across i	regions								
Hawaii Longline Observer Program protected species interactions	х			Х		х	х		х	Х	х	х	х	х	х	All cetaceans	Ongoing effort, sporadic interactions	20% in Deep-set longline fishery, 100% shallow-set longline fishery 20% in Deep-set	PIRO Observer Program
Hawaii Longline Observer Program fishery effort and characterization				х		х	х		х	х	х	х	x	х	х	All cetaceans	Ongoing	longline fishery, 100% shallow-set longline fishery	PIRO Observer Program
Hawaii Longline fishery cetacean bycatch estimates				х		х	х		х	х	х	Х	х	x	х	All cetaceans	Ongoing	All cetaceans bycaught	PIFSC FMRD
Hawaii Longline Logbook fishery effort						х	х		х	х	х	х	Х		х	All cetaceans	Ongoing	All fishing trips	PIFSC FRMD
Marine Mammal Health & Stranding Response Program (outside HI)	х	X			х	Х	х			х	х			Х	х	All cetaceans	Sporadically	Guam, CNMI, American Samoa	PIRO, Hawaii Pacific University
	Hawaii																		
Ship survey: visual line- tranect	x		х		х		х		х	х	х	х	x	x	x	All cetaceans	Full surveys 2002 and 2010, MHI survey 2009, NWHI survey 2013	Full survey = entire EEZ	SWFSC (2002), PIFSC CRP-SWFSC collaboration (2010), CRP (2009, 2013)
Ship survey: towed array	×	х	х		х						Х			X	х	All cetaceans	Full surveys 2002 and 2010, localized surveys every 2-3 years Full surveys 2002	Full survey = entire EEZ Full survey = entire	SWFSC (2002), PIFSC CRP-SWFSC collaboration (2010), CRP (2009, 2013) SWFSC (2002), PIFSC CRP-SWFSC
Ship survey: sonobuoys	x	х			х										x	Baleen whales	and 2010, localized surveys every 2-3	EEZ, deployed once per day or on baleen	collaboration (2010), CRP (2009, 2013)
Ship survey: oceanography (active acoustics, CTDs, XBTs, water samples)					х										х	All cetaceans	Full surveys 2002 and 2010, localized surveys every 2-3 years	Full survey = entire EEZ	SWFSC (2002), PIFSC CRP-SWFSC collaboration (2010), CRP (2009, 2013)
Small boat sighting surveys: sighting distribution	х				x		х	х	x	х	х	х	х	х	х	All cetaceans	Several efforts per year	Nearshore Main Islands	Primariy Cascadia Research Collective, occassionally CRP

																Faise Killer Whale, Spinner	Conected during	i	Primariy Cascaula Research
																dolphin, Pantropical spotted	ship and small boat		Collective nearshore, CRP
Tissue samples		х			X		х	x	х	х	х	х	х	х	х	dolphin, Bottlesnose	efforts, bycaught	Throughout EEZ	offshore, PIRO Observer
·																	Collected during	J	Primariy Cascadia Research
																	ship and small boat		Collective nearshore, CRP
Tissue samples		X			X					х			х	x	х	All other cetaceans		Throughout EEZ	offshore, PIRO Observer
																False killer whale, Melon-	Collected during		Primariy Cascadia Research
																headed whale, Short-finned			Collective nearshore, CRP
Photographs	Х	Х	Х		Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	pilot whale		Throughout EEZ	offshore
																	Collected during		Primariy Cascadia Research
																	ship and small boat		Collective nearshore, CRP
Photographs	Х	Х	Х		X	Х				х				x	х	All other cetaceans	efforts	Throughout EEZ	offshore
Pacific Islands Photo-																		Nearshore Main	PIPIN members: includes CRP,
Identification Network	Х	Х	Х		X	Х				х				x	х	Spinner dolphins	Sporadic	Islands	Cascadia, and several other
Long-term acoustic data																All cetaceans with known		2-4 throughout	
(HARPs)	х	х	х		Х									х	х	call types	Continuous	archipelago	CRP
																		· ·	
Opportunisits assustic																		Hawaii Island, but	CRP, Cascadia Research
Opportunisite acoustic																All cotocces		1 ' '	· ·
recordings		Х			Х			$\vdash$							Х	All cetaceans  Primarily false killer whales,	Sporadically	Lanai	Collective, Other researchers
Passive acoustic recordings																but can include other	1-2 boats monitored	Throughout fishery	
on longline fishing gear	v	Х		X	Х	х					х	x		х	x	cetaceans	per month	area	CRP
Hawaii Department of	^	^		^	٨	Λ					^	^		^	^	cctaccans	permonen	arca	CITI
Aquatic Resources																			
Commercial Fish Catch																	Monthly or trip-	All State of HI	
Reports						X	х				x				x	All cetaceans		commercial fisheries	State of Hawaii
Reports						٨									^	An ectaceans	reverreporting	commercial fisheries	Primariy Cascadia Research
Satellite telemetry	х	Х			х	х	х	x	х	х	х	v	х	v	x	False killer whales	Several per year	   Within Hawaii EEZ	Collective nearshore, CRP
Satellite teleffleti y	^	^			٨	۸	^	^			^	^	^	^	^	Short-finned pilot whale,	. ,	Nearshore Main	Collective fleatshore, CKF
Satallita talamatru	v	v			v	V				v			V	v		Melon-headed whale	Several per year	Islands	Cascadia Research Collective
Satellite telemetry	Х	Х			Х	Х				Х			Х	Х	Х		<u> </u>	Nearshore Main	Cascadia Research Collective
Catallita talamatan																Pygmy killer whale,			Cascadia Research Collective
Satellite telemetry  Marine Mammal Health &	Х	Х			X	Х				Х				Х	Х	Blainville's beaked whale,	One every few years		Cascadia Research Collective
																		Mainly Hawaii, but	DIDO LILLIMANAS Llavosii Daeifia
Stranding Response																All and a second	C !! !!	also Guam, CNMI,	PIRO, HIHWNMS, Hawaii Pacific
Program (HI)	Х	X		Х	Х	Х	Х			Х	Х	Х	Х	Х	X	All cetaceans	<u>'</u>	American Samoa	University
																All cetaceans with known	Three 20-30 day		
Acoustic gliders	Х		Х		Х									Х	Х	call types Primarily deep-diving	deployments to 20 day cruises	Oahu, Kona	CRP-UH collaboration
Kona Integrated Ecosystem																species: beaked whales,	annually starting		PIFSC EOD, with CRP
Assessment (IEA)	v				V									v	x		,	Kona	participation
rissessment (IE/t)	X				X										<u> </u>	speriii wiidies, pilot wiidies	2011	Kona	participation
	Marian	a Archir	oolago ((	Guam-Coi	mmonwo	alth of the	Northor	a Mari	ana Isla	ands)									
	ivial Idíl	a AI CHIL	ciago (	Juaiii-CO	mmonwe	מונוו טו נוופ	i voi tileit	i ividi l	ana 1518	anus)				Ī	T	1	ı	Within Form: of	T
Ship survey: visual line-	v															All cotaceans	20 days 2015	Within 50nmi of	CPD
tranect	X		Х		Х								<u> </u>	Х	+	All cetaceans	30 days 2015	archipelago	CRP
Chin cum com to con di com																Allocks	20 do::: 2045	Within 50nmi of	CDD
Ship survey: towed array	Х	Х	Х		X			-						Х		All cetaceans	30 days 2015	archipelago	CRP
																		archipelago,	
																		Deployed once per	
Ship survey: sonobuoys	Х	Х	Х		Х											Baleen whales	30 days 2015	day or on baleen	CRP
Ship survey: oceanography																			
(active acoustics, CTDs,																		Within 50nmi of	
XBTs)					Х											All cetaceans	30 days 2015	archipelago	CRP
																		_	
Small boat sighting surveys:																1	30-60 days per year		
			1		X								Х	х	Х	All cetaceans		Southern islands	CRP
sighting distribution	Х							1											
sighting distribution	Х																Collected during		
sighting distribution  Tissue samples	Х														x	All cetaceans	_	Primarily within 50nmi of archipelago	

<b>,</b>				ı												Collected during		Primarily CRP, some
<b>,</b>				ı												ship and small boat	Primarily within	contributions from Navy
hotographs	Х	Х	х	ı <b>!</b>	Х	Х				<u> </u>		Х	х	Х	All cetaceans	efforts	50nmi of archipelago	researchers
															False killer whale, Short-			
<b>y</b>			.	ı 📝		<u> </u>						1	1		finned pilot whale,			
<b>,</b>			.	ı 🖊		'						!	1		Bottlenose dolphin, Rough-	Sporadic		
<b>y</b>			<i>i</i>	ı 📝		<u> </u>				1 1		!	1					
			<i>i</i>	ı 📝		<u> </u>				1 1		!	1			deployments (5 in 5		
Satellite telemetry	Х	Х		<u> </u>	Х	<u> '</u>			]	<del>↓</del>		Х	Х	Х				CRP
ong-term acoustic data				ı		<u> </u>				1 1		!	1		All cetaceans with known		2 sites since 2010,	
HARPs)	Х	Х	X	ı <b>_</b>	X	<b> </b> '						X	Х	Х	call types			CRP
Opportunisitc acoustic																	Nearshore Guam,	
ecordings	l	Х	ıl	ı <b>_</b>	Х	<b> </b> '				<u>                                   </u>	<u> </u>		l		All cetaceans	Sporadically	Saipan, Tinian	CRP, other researchers
	Palmyr	a Atoll 8	k Kingma	an Reef						<del></del>			•				•	
hip survey: visual line-				ı		<u> </u>				1 1		!	1					SWFSC (2005), PIFSC CRP (2011
ranect	Х		Х	ı <b>!</b>	Х	·'	х		х	<u>                                    </u>		X	х	Х	All cetaceans	and 2011-12		12)
																Full surveys 2005	Full survey = entire	SWFSC (2005), PIFSC CRP (2011
hip survey: towed array	х	х	Х	ı 🕴	X	<u> </u>	х					!	х	. x		-	· ·	12)
, , , , , , , , , , , , , , , , , , ,				· ·		<u> </u>				+ + -			<del>                                     </del>	·			Full survey = entire	,
<b>,</b>				ı 🕴		<u> </u>						!	1		1		EEZ, deployed once	
<b>,</b>				ı 🕴		<u> </u>						!	1		1			CM/ECC (200E) DIESC CDD (2014
				ı		<u> </u>						!	1			Full surveys 2005	1 · · · · · · · · · · · · · · · · · · ·	SWFSC (2005), PIFSC CRP (2011
Ship survey: sonobuoys	Х	Х	Х	<del></del>	Х	<u> </u> '				<del>                                     </del>			<del></del>		Baleen whales	and 2011-12	whale sightings	12)
	1		.	ı /		'				<b> </b>		!	1					
Ship survey: oceanography	1		<i>i</i>	ı 📝		<u> </u>				1 1		!	1		1			
active acoustics, CTDs,	1		.	ı 📝		'						!	1		1	Full surveys 2005	Full survey = entire	SWFSC (2005), PIFSC CRP (2011
(BTs, water samples)	<i>l</i>		<i>i</i>	ı <mark>/</mark>	х	<u> </u>				<u>                                   </u>			1		All cetaceans	and 2011-12	EEZ	12)
			i	ı						1					1	2 periods of 3-6		
Small boat sighting surveys:			<i>i</i>	ı		<u> </u>				1 1		!	1					
			<i>i</i>	ı		<u> </u>				1 1		!	1			weeks per year,	** · · · · · · · · · · · · · · · · ·	COO O CO SELLA CONTROL
sighting distribution	Х		<del></del>	<del></del>	X	<u> </u> '				++-			Х	X	All cetaceans	2006-2010	Nearshore	CRP & SIO collaboration
J	1		<i>i</i>	ı 🕴		<u> </u>						1	1		1	Collected during		
J	1		.	ı 🕴		<u> </u>				<b> </b>		!	1			ship and small boat		
Tissue samples	1	V	.	ı 🕴		<u> </u>	V		х			!	,	•		•	Throughout EEZ	SWFSC, CRP, SIO
issue sampies		Х		·	X		Х		^	+	<del></del>		Х				Throughout ELZ	3WF3C, CRF, 310
<i>y</i>				ı 🕴								!	1			Collected during		
<i>y</i>				ı 🖊						1 1		!	1			ship and small boat		
Photographs	х	Х	х	<b></b>	Х	Х			<u> </u>	<u> </u>			Х	<u>x</u>		efforts	Throughout EEZ	SWFSC, CRP, SIO
Long-term acoustic data															All cetaceans with known			
(HARPs)	x	х	х	ı	Х	<b>l</b> '				1 1		!	х	x	call types	Continuous	1 site 2006-2010	CRP- SIO collaboration
								•	•								<u> </u>	
	Americ	an Samo	)a															
																One week near		
Non-standard ship survey	х		ı	ı 🕴	Х	<u> </u>			х			x	х	x	All cetaceans	Swains- 2006,	Localized	CRP
· · · · · · · · · · · · · · · · · · ·				i						+ + +					†		†	
Small boat sighting surveys:			<i>i</i>	ı		<u> </u>				1 1		!	1		1	Three one week	Nearshore Tutuila,	
	, ,		.	ı 🕴		<u> </u>	Ü			<b> </b>							·	CDD
sighting distribution- CRP	X		<del></del>	<del></del>	X	<b></b> '	Х		Х	+	-	Х	Х	X	All cetaceans	surveys 2006-2008	Swains	CRP
Small boat sighting surveys:			.	ı 🕴		<u> </u>				<b> </b>		!	1		1			
sighting distribution-			<i>i</i> [	ı 🖊		<u> </u>				1 1		!	1		1		Nearshore Tutuila,	
HIHWNMS	x		<i>i</i> [	ı 🖊	X	<u> </u>	х		х	1 1		Х	х	х	Humpback whales		·	HIHWNMS
										+ +			<del>                                     </del>		Transpagnitude (	1	- I	
J	1		.	ı 🕴		<u> </u>						!	1		1	5 11 1 1 2 2 2		
J	1		.	ı 📝		<u> </u>				<b> </b>		!	1			Collected during		
J	1		.	ı 📝		<u> </u>				<b> </b>		!	1				Nearshore Tutuila,	
Tissue samples	I	Х		ı <b>_</b>	Х	<b>/</b> '	Х		х	<u>    _   _   _   </u>		x	Х	x	All cetaceans	bycaught cetaceans	Swains	CRP, PIRO Observer Program
									l									
				ı								I	1			Collected during	Nearshore Tutuila,	
Photographs	Х	Х	Х		X	Х			Х	$\bot$			Х	X	All cetaceans	small boat efforts	Swains	CRP, HIHWNMS
			1		, <u> </u>								1			Ongoing effort,		
Ohserver Program					, J								1			sporadic		
Observer Program			'		' h		_											
Observer Program protected species interactions			1		'				×					•			C 400/ of fishing tring	PIRO Observer Program

Amazinan Canasa Lanalina									1	ı		T				1	1
American Samoa Longline														A.II		C 400/ CC 1:	
Observer Program fishery			X		Х			Х			Х	Х	Х	All cetaceans	Ongoing	6-40% of fishing trips	PIRO Observer Program
American Samoa Longline																	
fishery cetacean bycatch			Х		Х			Х			х		Х	All cetaceans bycaught	2010, 2015	Fishery area	PIFSC FMRD
	Wake A	toll															
												1			Two transits		
															through region in	Across EEZ & near	
Non-standard ship survey	X			X								х		All cetaceans	2010	Atoll	CRP
															Two transits		
																Λ ονοος ΓΓ7 Ω νοον	
															through region in	Across EEZ & near	
Ship survey: towed array	X	х		Х								Х		All cetaceans	2010	Atoll	CRP
1															Two transits		
															through region in	Across EEZ & near	
Ship survey: sonobuoys	X	x x		X										Baleen whales	2010	Atoll	CRP
Ship survey: oceanography															Two transits		
(active acoustics, CTDs,															through region in	Across EEZ & near	
XBTs, water samples)				X										All cetaceans	2010	Atoll	CRP
Long-term acoustic data														All cetaceans with known			
(HARPs)	X	х х		X								Х	х	call types	Continuous	1 site since 2010	CRP
	Johnsto	n Atoll						1		1	1	1	1		1	1	
China and the allies															5 H 2005	e II	
Ship survey: visual line-															Full survey 2005,	Full survey = entire	
tranect	X													<b>A</b> 11 .		•	S. L. (2002) S. 2000 (2000)
		Х		Х		Х					х	х	х	All cetaceans	partial survey 2006	•	SWFSC (2005), PIFSC CRP (2006)
		X		Х		Х					Х	Х	х	All cetaceans	partial survey 2006	EEZ	SWFSC (2005), PIFSC CRP (2006)
		X		X		Х					х	х	Х	All cetaceans	partial survey 2006 Full survey 2005,	Full survey = entire	
Ship survey: towed array	Х	x x		X		Х					х	х	х	All cetaceans  All cetaceans	partial survey 2006	Full survey = entire	SWFSC (2005), PIFSC CRP (2006) SWFSC (2005), PIFSC CRP (2006)
Ship survey: towed array	х	x x				х					х	х	х		partial survey 2006  Full survey 2005, partial survey 2006	Full survey = entire EEZ	
,	×	x x				х					х	х	Х	All cetaceans	Full survey 2006 partial survey 2005, partial survey 2006 Full survey 2005,	Full survey = entire EEZ Full survey = entire	SWFSC (2005), PIFSC CRP (2006)
Ship survey: towed array Ship survey: sonobuoys	x	x x				X					х	х	X		partial survey 2006  Full survey 2005, partial survey 2006	Full survey = entire EEZ Full survey = entire	SWFSC (2005), PIFSC CRP (2006)
Ship survey: sonobuoys	х			х		X					х	х	Х	All cetaceans	Full survey 2006 partial survey 2005, partial survey 2006 Full survey 2005,	Full survey = entire EEZ Full survey = entire	
Ship survey: sonobuoys Ship survey: oceanography	х			х		X					X	X	X	All cetaceans	Full survey 2005, partial survey 2006 Full survey 2006 Full survey 2005, partial survey 2006	Full survey = entire EEZ  Full survey = entire EEZ	SWFSC (2005), PIFSC CRP (2006)
Ship survey: sonobuoys  Ship survey: oceanography (active acoustics, CTDs,	х			X		X					X	X	X	All cetaceans  Baleen whales	Full survey 2005, partial survey 2006 Full survey 2005, partial survey 2006 Full survey 2006	Full survey = entire EEZ  Full survey = entire EEZ  Full survey = entire	SWFSC (2005), PIFSC CRP (2006) SWFSC (2005), PIFSC CRP (2006)
Ship survey: sonobuoys	х			х		X					X	X	X	All cetaceans	Full survey 2005, partial survey 2006 Full survey 2006 Full survey 2005, partial survey 2006	Full survey = entire EEZ  Full survey = entire EEZ  Full survey = entire	SWFSC (2005), PIFSC CRP (2006)
Ship survey: sonobuoys Ship survey: oceanography (active acoustics, CTDs,	х			X		X					X	X	X	All cetaceans  Baleen whales	Full survey 2005, partial survey 2006  Full survey 2005, partial survey 2006  Full survey 2006  Full survey 2005, partial survey 2006	Full survey = entire EEZ  Full survey = entire EEZ  Full survey = entire	SWFSC (2005), PIFSC CRP (2006) SWFSC (2005), PIFSC CRP (2006)
Ship survey: sonobuoys  Ship survey: oceanography (active acoustics, CTDs, XBTs, water samples)	х			X		X					X	X	X	All cetaceans  Baleen whales  All cetaceans	Full survey 2005, partial survey 2006  Full survey 2005, partial survey 2006  Full survey 2006  Full survey 2006  Collected during	Full survey = entire EEZ  Full survey = entire EEZ  Full survey = entire EEZ	SWFSC (2005), PIFSC CRP (2006) SWFSC (2005), PIFSC CRP (2006) SWFSC (2005), PIFSC CRP (2006)
Ship survey: sonobuoys  Ship survey: oceanography (active acoustics, CTDs, XBTs, water samples)	х			X		X					X	X	X	All cetaceans  Baleen whales	Full survey 2005, partial survey 2006  Full survey 2005, partial survey 2006  Full survey 2006  Full survey 2006  Collected during	Full survey = entire EEZ  Full survey = entire EEZ  Full survey = entire	SWFSC (2005), PIFSC CRP (2006) SWFSC (2005), PIFSC CRP (2006)
Ship survey: sonobuoys Ship survey: oceanography (active acoustics, CTDs,	х	x x		X X		X					X			All cetaceans  Baleen whales  All cetaceans	Full survey 2005, partial survey 2006  Full survey 2005, partial survey 2006  Full survey 2006  Full survey 2006  Collected during	Full survey = entire EEZ  Full survey = entire EEZ  Full survey = entire EEZ	SWFSC (2005), PIFSC CRP (2006) SWFSC (2005), PIFSC CRP (2006) SWFSC (2005), PIFSC CRP (2006)
Ship survey: sonobuoys  Ship survey: oceanography (active acoustics, CTDs, XBTs, water samples)	х	x x		X X		X					X			All cetaceans  Baleen whales  All cetaceans	Full survey 2005, partial survey 2006  Full survey 2005, partial survey 2006  Full survey 2005, partial survey 2006  Collected during ship survey efforts	Full survey = entire EEZ  Full survey = entire EEZ  Full survey = entire EEZ	SWFSC (2005), PIFSC CRP (2006) SWFSC (2005), PIFSC CRP (2006) SWFSC (2005), PIFSC CRP (2006)
Ship survey: sonobuoys  Ship survey: oceanography (active acoustics, CTDs, XBTs, water samples)  Tissue samples	x	x x		X X	X.	X					X			All cetaceans  All cetaceans  All cetaceans	Full survey 2005, partial survey 2006  Full survey 2005, partial survey 2006  Full survey 2005, partial survey 2006  Collected during ship survey efforts  Collected during	Full survey = entire EEZ  Full survey = entire EEZ  Full survey = entire EEZ  Throughout EEZ	SWFSC (2005), PIFSC CRP (2006) SWFSC (2005), PIFSC CRP (2006) SWFSC (2005), PIFSC CRP (2006) SWFSC, CRP
Ship survey: sonobuoys  Ship survey: oceanography (active acoustics, CTDs, XBTs, water samples)  Tissue samples	х	x x		X X	X	X					X			All cetaceans  Baleen whales  All cetaceans	Full survey 2005, partial survey 2006  Full survey 2005, partial survey 2006  Full survey 2005, partial survey 2006  Collected during ship survey efforts  Collected during	Full survey = entire EEZ  Full survey = entire EEZ  Full survey = entire EEZ  Throughout EEZ	SWFSC (2005), PIFSC CRP (2006) SWFSC (2005), PIFSC CRP (2006) SWFSC (2005), PIFSC CRP (2006)
Ship survey: sonobuoys  Ship survey: oceanography (active acoustics, CTDs, XBTs, water samples)  Tissue samples  Photographs	x	x x		X X	x vis, Howla		er)				X			All cetaceans  All cetaceans  All cetaceans	Full survey 2005, partial survey 2006  Full survey 2005, partial survey 2006  Full survey 2005, partial survey 2006  Collected during ship survey efforts  Collected during	Full survey = entire EEZ  Full survey = entire EEZ  Full survey = entire EEZ  Throughout EEZ	SWFSC (2005), PIFSC CRP (2006)  SWFSC (2005), PIFSC CRP (2006)  SWFSC (2005), PIFSC CRP (2006)  SWFSC, CRP
Ship survey: sonobuoys  Ship survey: oceanography (active acoustics, CTDs, XBTs, water samples)  Tissue samples  Photographs	x All Oth	x x		X X	x vis, Howla		er)				X			All cetaceans  All cetaceans  All cetaceans	Full survey 2005, partial survey 2006  Full survey 2005, partial survey 2006  Full survey 2005, partial survey 2006  Collected during ship survey efforts  Collected during	Full survey = entire EEZ  Full survey = entire EEZ  Full survey = entire EEZ  Throughout EEZ	SWFSC (2005), PIFSC CRP (2006) SWFSC (2005), PIFSC CRP (2006) SWFSC (2005), PIFSC CRP (2006) SWFSC, CRP